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The photographs were accompanied by memoranda as to power and objectives used, light employed, time of exposure, kind of plate and developer used, etc., and proved of great service to those not fully versed in the art of photo-micrography.

Miss M. A. Booth distributed to the members present samples of Atlantic coast diatoms procured and prepared by herself, and Mr. Vorce distributed samples of Mobile Bay diatoms forwarded to him for that purpose by Dr. Geo. H. Taylor of Mobile, Ala., and samples of diatomaceous earth from Denver, Col., forwarded by H. B. Chamberlin, Esq., of Denver.

Dr. Taylor furnished the following description of the method by which the samples he furnished were prepared:

WATERWASHED DIATOMS.

DR. GEO. H. TAYLOR'S METHOD.

A quantity of the mud containing the diatoms is placed in a large jar with two or three times its bulk of clean water and thoroughly shaken up. After settling for ten minutes about half the water is poured off into another jar, and the first is refilled, shaken, allowed to settle as before, and most of the water poured off. This process is kept up until the water is perfectly clear at the end of ten minutes. The light portions poured off are saved for future treatment.

The heavy material which contains all but the smallest diatoms, has much sand mixed with it. To get rid of this it is shaken up in the jar of water, and the top part almost immediately poured off. This is repeated several times, refilling the jar with pure water each time until the heavy sand remaining shows but few diatoms mixed with it. The material obtained by the last pourings, consisting of nearly all the diatoms, and the *fine* sand is now boiled in water with the addition of a little cooking soda. After which it is placed in a large bottle filled with pure water, shaken up, and after standing five minutes poured off. The bottle is refilled and the process continued for several hours, the time of settling being gradually reduced to three, or even two minutes. The remaining material is then placed in a shallow concave dish, a little at a time, with a small amount of water, and gently rocked and rotated, by which the diatoms and lighter particles rise in the water, and can either be poured off or dipped out with a pipette, leaving most of the sand behind.

The material so obtained is called "waterwashed," as no acids are used, and almost the whole treatment is with pure water alone.

For perfect cleaning of the material Dr. Taylor furnishes the following directions:

CLEANING DIATOMS FROM MARINE MUDS.

DR. GEO. H. TAYLOR'S PROCESS.

A quantity of the mud found to contain diatoms is placed in a large jar, which is then filled with clean water, thoroughly shaken, and allowed to settle for ten minutes. One-half is then poured off into another jar, the first refilled, shaken up, and again allowed to settle for ten minutes when the top portion is poured off into a third jar. The heavier material in the first jar is now washed several times by filling the jar with clean water, thoroughly shaking, settling for ten minutes and pouring off the top portion into the third jar. This process is continued with the first jar until the water is clear after settling for ten minutes. The material is then taken from the first jar in small quantities and "sanded" by placing each portion in a shallow dish with a moderate quantity of water, and rotating the dish so as to cause a vortex in the water, when the diatoms and lighter matter will rise in the water and can be poured off into a quart bottle, leaving the sand and heavier particles behind. This process is repeated with each portion until only sand is left in the dish, which sand is, of course, thrown away. The "sanded" material accumulated in the quart bottle is now placed in an evaporating dish, holding at least half a pint, and dried. When dry, nitric acid is poured upon it in liberal quantity, and it is boiled until fumes cease to appear, when a few grains of bichromate of potash are dropped in, and after boiling a few minutes more the dish and its contents are allowed to cool. When cool, pour off the acid and refill the dish with sulphuric acid; boil this thoroughly, and finally add a little bichromate of potash. It is better to pour off the acid and add fresh, at least once during the boiling, or to drop in a quantity of fresh acid several times during the boiling, which can scarcely be too prolonged. When the sul-